

Twenty-Fifth Annual Report
of the
Commissioners
of the
State Reservation at Niagara
Oct. 1, 1907 - Sept. 30, 1908

SpC1
F
127
N8N5
v.25

226609



VIEW FROM GOAT ISLAND, MAINLAND IN THE DISTANCE.

See pages 18 + 24

Twenty-fifth Annual Report

OF THE

Geo. B. Matthews
Commissioners

OF THE

State Reservation at Niagara

FROM

October 1, 1907, to September 30, 1908.

TRANSMITTED TO THE LEGISLATURE FEBRUARY 8, 1909.

ALBANY

J. B. LYON COMPANY, STATE PRINTERS

1909

W. H. R. A. S. C.

STATE OF NEW YORK

No. 37.

IN ASSEMBLY

FEBRUARY 8, 1909.

TWENTY-FIFTH ANNUAL REPORT

OF THE

COMMISSIONERS OF THE STATE RESERVATION AT NIAGARA.

NIAGARA FALLS, N. Y., *February 6, 1909.*

To the Honorable JAMES W. WADSWORTH, *Speaker of the Assembly, Albany, N. Y.:*

SIR.—I herewith transmit, for presentation to the Legislature of the State of New York, the Twenty-fifth Annual Report of the Commissioners of the State Reservation at Niagara, for the fiscal year ended September 30, 1908.

Yours respectfully,

CHARLES M. DOW,

President.

636

~~PUBLIC LIBRARY~~
~~NIAGARA FALLS, N. Y.~~

COMMISSIONERS.

CHARLES M. DOW, *President*, Jamestown, N. Y.

GEORGE RAINES..... Rochester, N. Y.

THOMAS P. KINGSFORD..... Oswego, N. Y.

ALEXANDER J. PORTER..... Niagara Falls, N. Y.

EUGENE CARY..... Niagara Falls, N. Y.

Secretary and Treasurer.

EDWARD H. PERRY..... Niagara Falls, N. Y.

Superintendent.

EDWARD H. PERRY..... Niagara Falls, N. Y.

CONTENTS.

	PAGE.
Letter of transmittal.....	7
Commissioners and officers.....	8
Commissioners' report	9
Changes in Commission.....	9
Death of George Raines.....	9
Memorial	9
Improvements during the year.....	10
Talus pathway	10
Repairs to bridges.....	10
New curb on Green Island.....	11
Overhead wires removed.....	11
Tree planting	11
Clearing Goat Island.....	12
Overflow sewer	12
Street railway tracks on riverway.....	15
Water diversion	16
International Waterways Commission; report to Secretary of War covering diversion from Niagara river for power purposes	17
Niagara Falls and river.....	17
International boundary	19
Regulation of Lake Erie.....	19
Appendix "A"	20
Appendix "B"	22
Conclusions	23
Number of visitors.....	24
Roads	25
Elevator	26
Public comfort stations.....	33
Elevator at Cave of Winds.....	33
Recapitulation of funds needed.....	34
Estimated receipts for next year.....	34
Treasurer's report	35
Superintendent's report	49

LIST OF ILLUSTRATIONS.

	PAGE.
View from Goat Island.....	Frontispiece
Lamp posts of new lighting system.....	8
Talus slope below Goat Island.....	10
Goat Island cliff and northern end Horseshoe Fall.....	10
Green Island bridge. Paved with brick.....	12
Goat Island. Paved with brick.....	12
Forest path on Goat Island.....	14
Terrapin Point. Summer.....	16
Terrapin Point. Winter.....	16
Scene on Prospect Park.....	26
Fisherman's trail, near entrance.....	32
Fisherman's trail, near spring.....	32
View from new Talus trail.....	36
Portion of new trail to Luna Island.....	50
Another portion of new trail to Luna Island.....	50
Transformer house	52
Terminal building	52



LAMP POST OF NEW LIGHTING SYSTEM.

REPORT.

To the Honorable, The Legislature of the State of New York:

The Commissioners of the State Reservation at Niagara have the honor to submit herewith their annual report for the fiscal year ended September 30, 1908, as required by law.

CHANGES IN THE COMMISSION.

On June 11, 1908, Governor Hughes reappointed for a term of five years all of the Commissioners then incumbent, viz., Charles M. Dow of Jamestown, George Raines of Rochester, Thomas P. Kingsford of Oswego, and Alexander J. Porter of Niagara Falls. To fill the vacancy caused by the resignation of Alvah K. Potter of Lockport the Governor appointed Eugene Cary of Niagara Falls. On June 18, 1908, the Commission held a meeting at Niagara Falls and elected Charles M. Dow, President, and appointed Edward H. Perry, Secretary and Treasurer.

DEATH OF GEORGE RAINES.

The death of Honorable George Raines occurred at his home in Rochester, November 27, 1908. He had served the State as a Commissioner continuously from December 27, 1893.

At a meeting of the Commission held at Niagara Falls on December 4, 1908, the following resolution was adopted, ordered spread upon the minutes and a copy sent to the family of the deceased.

MEMORIAL.

“With deep regret and personal sorrow the Commissioners of the State Reservation at Niagara learn of the death of their fellow Commissioner, Hon. George Raines, who for nearly fifteen years has served the State in that capacity. A close association of more than ten years gave them a true appreciation of the strong, dignified, manly and courteous character of their colleague and taught them to turn to him for advice and counsel which was always just, true and safe; be it therefore

RESOLVED, That we do hereby order spread upon the minutes

of this Commission this testimonial of the great loss which we have sustained by reason of his death and to convey to his family the sincere sympathy of his fellow Commissioners.

IMPROVEMENTS DURING THE YEAR.

The most important work done upon the Reservation during the fiscal year was the completion of the installation of the outside lighting system for the mainland, the construction of a pathway along the talus slope between the Horseshoe and American Fall, the repairs to the two stone arched bridges extending from the mainland to Goat Island and the removal of all the overhead wires from Prospect Park.

THE OUTSIDE LIGHTING SYSTEM.

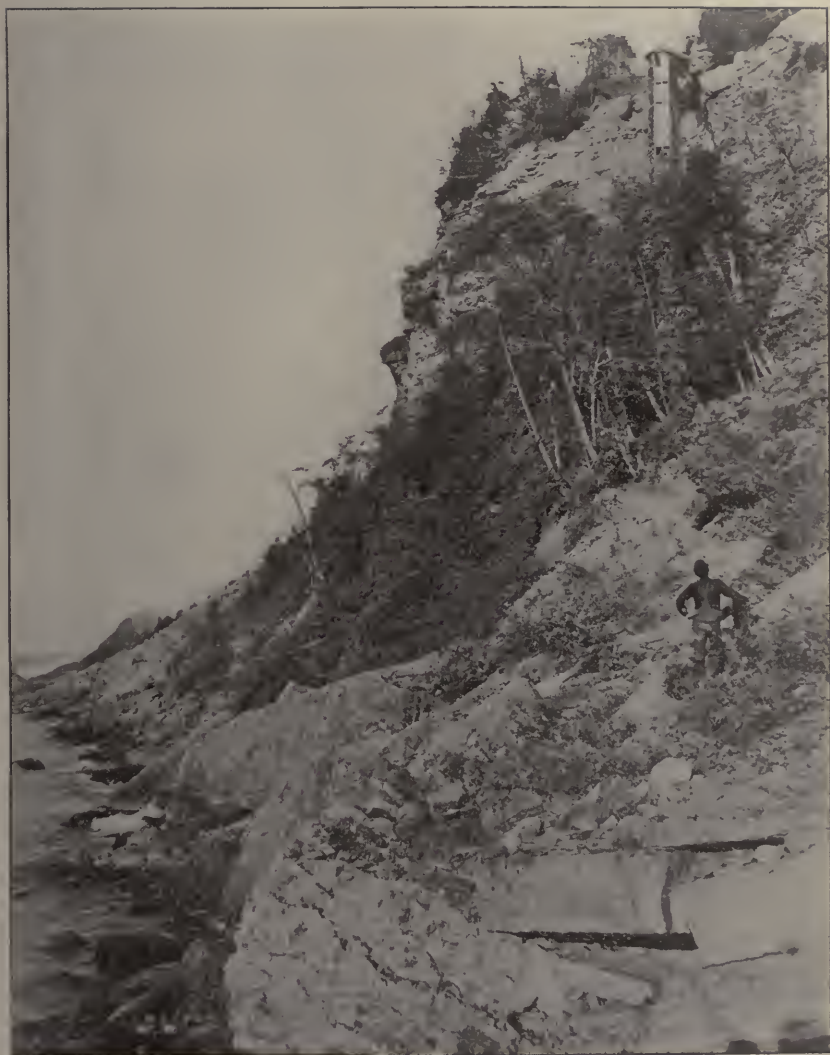
The outside lighting system, the contract for which was awarded prior to the writing of the last report, has been in continuous operation since December 24, 1907. The effects produced by this system have been all that could have been expected and the expense of operation has been exceedingly small.

TALUS PATHWAY.

The new pathway mentioned in the report of the Superintendent was ordered constructed that the visitors to Niagara might be enabled to enjoy new and hitherto inaccessible views between the two great falls. This pathway can only be reached by descending the stairway on Goat Island known as the Biddle Stairway, which was erected in 1829 and which, aside from actually necessary repairs made since that time, remains exactly as constructed. The pathway above mentioned serves to emphasize the necessity of a more commodious means of reaching the lower river on Goat Island. We renew our request of last year for sufficient funds to replace this structure with a permanent and commodious means of access and for dressing-rooms to be used by the lessee of the Cave of the Winds.

REPAIRS TO BRIDGES.

By chapter 466 of the Laws of 1908, \$8,000 was provided for repairs to the stone arch bridges connecting Goat Island and the mainland. The contract was let to George S. Neilson, of Niagara Falls, N. Y., on his proposal to do the work specified for \$7,323.25.



TALUS SLOPE BELOW GOAT ISLAND.



GOAT ISLAND CLIFF AND NORTHERN END OF HORSESHOE FALL. AS SEEN FROM
NEW TALUS TRAIL.

The work has been completed in a very satisfactory manner and the bridges should need no further repairs for a long term of years.

The contract provided for a four-inch water main to be laid from the mainland to Goat Island. In order to secure the benefit of the additional water pressure provided, it was necessary to continue the four-inch line up the hill on Goat Island for a distance of about 300 feet, which gives an adequate pressure at the hydrant where the sprinkling wagon is filled and also at the public comfort stations on Goat Island. While the road across Green Island was torn up two new catch basins were constructed and connected with the drainage system; connections were also made with the four-inch water main for two additional lines of pipe to each side of the road for lawn sprinkling purposes.

NEW CURB ON GREEN ISLAND.

Concrete curbs have been constructed on Green Island between the bridges, thus more definitely defining the road and walk lines.

OVERHEAD WIRES REMOVED.

The placing of all electric wires in underground conduits made possible by the outside lighting system above referred to, removed all overhead wires from Prospect Park except telephone and clock wires. Underground conduits have since been laid through the park for the accommodation of these wires. The only overhead wires now upon the Reservation are those of the telephone system to and around Goat Island.

TREE PLANTING.

During the year a number of fine maples and elms have been planted in Prospect Park and at Port Day. Fifty elms and ash have been planted on the upper end of Goat Island, it being the intention to reforest that portion of the island and relieve the barren aspect which it has presented in the past.

Many of the older trees upon the Reservation are deteriorating very rapidly and provision for replacing them with strong, vigorous trees should be made at once. This work cannot be carried on to any great extent without funds provided for that special purpose. We recommend that an appropriation be granted, not only to provide for such planting, but also to provide for the scientific treatment of the present forest and to preserve the grand specimens still remaining.

CLEARING GOAT ISLAND FOREST.

The forest on Goat Island had become so overgrown with brambles, suckers and unhealthy growth of saplings as to make it almost impossible for visitors to leave the regularly trodden paths. In order to relieve the situation and divert the nourishment to the larger trees, much of the undergrowth and practically all of the fallen timber has been removed.

This treatment permits visitors to wander at will through the virgin forest and assists very materially in policing the Island.

OVERFLOW SEWER.

In January, 1907, the Commissioners received a communication from the city engineer of the city of Niagara Falls, requesting permission to construct an overflow sewer through and under the lands of the Reservation to relieve the congested condition of the sewer system on Buffalo avenue during seasons of heavy rain.

The matter was referred to the Attorney-General, who, under date of March 8, 1907, submitted an opinion that the law relating to the powers and duties of the Commission did not empower them to make such grant. Accordingly a resolution was adopted unanimously, setting forth that the Board of Commissioners would favor the passage of an act by the Legislature granting the privilege, on such conditions as had been set forth by the State Commissioner of Health.

The Legislature passed the following act, which is known as

CHAPTER 243.

AN ACT to amend the public lands law, in relation to sewer through the lands of the State Reservation at Niagara.

Became a law May 11, 1908, with the approval of the Governor. Passed, three-fifths being present.

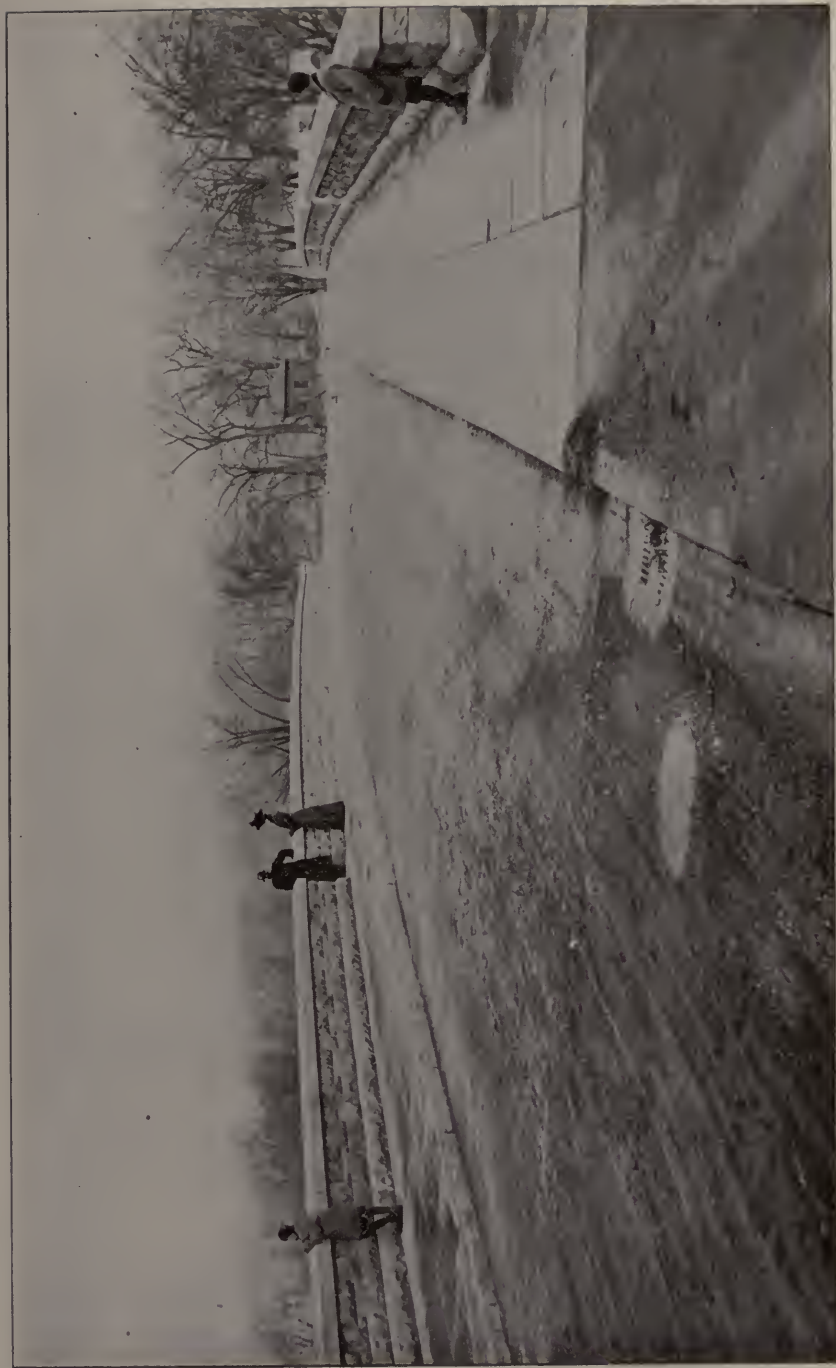
Accepted by the city.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section ninety-two of chapter three hundred and seventeen of the laws of eighteen hundred and ninety-four, entitled "An act in relation to the public lands, constituting chapter eleven of the general laws," is hereby amended by adding thereto a new subdivision, to be subdivision seven thereof, to read as follows:



GREEN ISLAND BRIDGE. PAVED WITH BRICK.



GOAT ISLAND BRIDGE. PAVED WITH BRICK.

7. Have power and authority to grant to the city of Niagara Falls a license to lay, construct and maintain an overflow sewer or drain in, through, under and along the lands of the State Reservation at Niagara upon such conditions as such Commissioners may prescribe.

§ 2. This act shall take effect immediately.

In conformity with the foregoing act, the following agreement was entered into between the Commissioners of the State Reservation and the city of Niagara Falls.

THIS INDENTURE, made this first day of August, 1908, between Charles M. Dow, George Raines, Thomas P. Kingsford, Alexander J. Porter and Eugene Cary, constituting the Commissioners of the State Reservation at Niagara of the first part, and the city of Niagara Falls, a municipal corporation of the State of New York, of the second part.

WITNESSETH, That the parties of the first part, in pursuance of the power vested in them by the Laws of the State of New York, have granted and do hereby grant unto the party of the second part a license to excavate, construct and maintain an overflow sewer across the lands of the State Reservation near Buffalo avenue, according to a plan entitled, "City of Niagara Falls, N. Y., Plan and Profile of Proposed Overflow Sewer for Relief of Buffalo Avenue Sewer, January, 1907, W. W. Read, City Engineer," which plan is hereto annexed, referred to and made a part hereof, subject to the conditions contained in the permit for the construction of said sewer, dated April 10, 1907, granted by the New York State Department of Health to the city of Niagara Falls and filed in the Niagara county clerk's office, a copy of which permit is hereto annexed, referred to and made a part hereof, upon the following terms and conditions, to wit:

1. That said overflow sewer shall be constructed by said city in accordance with the plan hereto annexed, except that said sewer shall be carried out into the Niagara river a sufficient distance to prevent any substance passing through the same to float down the river near enough to the shore line so as to enter the raceways running through the lands of the State Reservation, and subject to the approval of the Superintendent of the Reservation.

2. That said sewer shall be constructed in a proper and workmanlike manner and in accordance with the plans and specifications therefor prepared and on file in the city engineer's office, and that the trench in which said sewer is laid shall be properly

back-filled and said city shall make good any settlement that may hereafter occur from the trench of said sewer, and said city shall also clear the ground of all rubbish and surplus material caused by such excavation, and properly protect the bank of the river at the end of said sewer, and that portion of the Reservation through which said sewer is constructed shall be restored and left in as good condition as now, and all such work shall be done and performed in a manner satisfactory to the Superintendent of the Reservation.

3. Said city shall not be authorized after the construction of such sewer to again enter upon the lands of the Reservation for the purpose of repairing said sewer, or to make any excavation thereon without the permission of the party of the first part, or their successors in office. But in case repairs shall, in the judgment of the parties of the first part, or their successors in office, or of the Superintendent of the Reservation, be necessary, the city shall, and it hereby agrees to make such repairs at once at its own expense and to the satisfaction of the Superintendent, on being notified by the Superintendent so to do, and after the making of such repairs to clear the ground of all rubbish and surplus material and restore that portion of the Reservation through which said sewer passes to the same condition as before such repairs were made.

4. This license is granted upon the express condition and understanding that the same may be revoked at any time by the party of the first part, or their successors in office, for any violation of the conditions hereof, or the conditions contained in the permit of the State Board of Health herein referred to, or in case, in the judgment of said Commissioners, said sewer, or the substance passing through the same, shall pollute the water of the river or cause the same to become unsightly, or in any way injure the lands or scenery of the Reservation.

IN WITNESS WHEREOF, The parties of the first part have hereunto set their hands and seals the day and year first above written.

CHARLES M. DOW,	[L. S.]
GEORGE RAINES,	[L. S.]
THOMAS P. KINGSFORD,	[L. S.]
ALEXANDER J. PORTER,	[L. S.]
EUGENE CARY,	[L. S.]

Commissioners.



FOREST PATH ON GOAT ISLAND.

EUGENE H. PORTER, M. D.,
Commissioner.

NEW YORK STATE DEPARTMENT OF HEALTH,
Albany, April 10, 1907.

PERMIT.

Application having been duly made as provided by section 76 of the Public Health Law, as amended by chapter 468 of the Laws of 1903, permission is hereby given to the common council of Niagara Falls to discharge sewerage from the Buffalo avenue overflow sewer into the waters of the Niagara river at Niagara within the municipality of Niagara Falls in accordance with the plans accompanying the petition, under the following conditions:

1. This permit is issued for a period of three years from the date hereof.

2. The Buffalo avenue overflow sewer shall be so constructed at the inlet end that this sewer shall operate during storms only.

3. This permit shall be revocable at any time by the State Commissioner of Health, or subject to modification or change if in the judgment of the said Commissioner it shall become necessary or desirable; and the granting of this permit shall not be deemed to affect in any way action by this department on any future applications that may be made for permission to allow the discharge of additional sewerage into the waters of this State.

EUGENE H. PORTER,
State Commissioner of Health.

NOTE.— This permit to become operative must first be recorded in the county clerk's office of Niagara county, in which the outlet of the sewer or in which the establishment is located.

(County clerk's certificate attached.)

The sewer has been completed to the water's edge and will be carried out into the river at least one hundred feet as soon as the funds for the same are provided for in the city budget.

STREET RAILROAD TRACKS IN RIVERWAY.

On September 23, 1899, the Commissioners entered into an agreement with the Niagara Falls and Suspension Bridge Railway Company, now the International Railway Company, for trackage privileges on the Riverway, between Niagara and Falls streets in the

Reservation. The agreement being that the railway company should construct the tracks with turnouts, etc., complete, in conformity with the maps provided and approved and keep an exact and itemized statement of the cost of construction; that the rental should be at the rate of "\$1,000.00 per annum in advance, the first payment of the license fees to be due and payable at the expiration of such time as the license fees at said rate, computed from this date, September 23, 1899, would equal the amount expended or advanced by said company in the construction of said street railroad tracks." Computed as above, the time expired November 20, 1908, and the International Railway Company has made the first payment, same being from November 20, 1908, to November 20, 1909.

The license under which the railway company operates over these tracks is revocable and expressly provides that it in no way limits the Commissioner's rights to license other companies to use the same track.

WATER DIVERSION.

The question of diversion of water from the falls by reason of the operation of the several power development plants at Niagara has been heretofore made a subject of comment in the annual reports of the Commissioners.

The results of the investigation and measurement made under the direction of the International Waterways Commission and covered in that part of their fourth progress report under date of December 1, 1908, which follows, will be read with much interest.

In this same report will be found interesting statements as to the question of the international boundary line between the United States and Canada.

The Commissioners are also informed that the United States Lake Survey Corps has submitted a report to the Secretary of War as to the investigation and measurement of water diversion at Niagara. The findings in this report are said, in the main, to agree with those contained in the report of the International Waterways Commission.

With much gratification the Commissioners also learn of the proposed joint treaty as drawn and submitted by Secretary of State Root and the British Minister which, if ratified, will provide for the caring for all questions of international character between the United States and Canada, including that of water diversion at Niagara, by a joint Commission of six members, three to be appointed from each country.



TERRAPIN POINT. SUMMER.



TERRAPIN POINT. WINTER.

REPORT TO THE SECRETARY OF WAR.

INTERNATIONAL WATERWAYS COMMISSION,
OFFICE OF CHAIRMAN, AMERICAN SECTION,
WASHINGTON, D. C., *December 1, 1908.*

The Honorable Secretary of War, Washington, D. C.:

SIR.—1. The American members of the International Waterways Commission have the honor to submit the following progress report covering their work under the War Department for the year ending December 1, 1908:

NIAGARA FALLS AND RIVER.

2. In our last progress report reference was made to a resolution which had been passed by the committee on rivers and harbors of the House of Representatives, referring to the Commission for report, a bill which the Committee had under consideration, entitled "A bill amending an act entitled 'An act for the control and regulation of the waters of the Niagara river, for the preservation of Niagara Falls, and for other purposes,' approved June 29, 1906." The object of the bill was to authorize the diversion of water from the Niagara river at the Whirlpool Rapids, below the falls, by the Lower Niagara River Power and Water Supply Company. The subject was considered at a meeting of the American section in Buffalo February 24, 1908. At this meeting representatives of the Niagara Gorge Railroad Company, and its subsidiary company, the Niagara Gorge Power Company, who also had a bill before Congress to authorize the diversion of water at the Whirlpool Rapids, asked for a hearing. Although their bill had not been referred to the Commission, and could not be considered by it at that time, we thought it best to grant the hearing after explaining the circumstances to the applicant, in order to be prepared to report upon the bill in case it should be referred to us subsequently. It was not, however, so referred. At a joint meeting of the Commission in Buffalo March 3, 1908, a report to the Rivers and Harbors Committee was agreed upon and forwarded, copies being sent to the Honorable Secretary of War and

to the Honorable Secretary of State. A copy of the report is hereto appended marked "A."

3. During the summer of 1908 the works of the Niagara Falls Power Company were shut down upon three occasions, the first one June 14th, to enable the International Railway Company to inspect the foundation of the American abutment of their steel arch bridge, and the others July 19th and August 1st, for the purpose of making repairs to the tunnel. The Commission having been notified in advance, through the courtesy of Mr. Edward A. Wickes, vice-president of the company, took advantage of the opportunity to observe the effect upon the river and the falls of the diversion or nondiversion of the considerable body of water used by that company. The American secretary was instructed to install water gauges at and above the falls, and to observe these gauges before, during and after the shut down, and to make a careful inspection of the tunnel while empty, in its hydraulic capacity. A violent storm on Lake Erie masked the effects of the shut-down of June 14th, but interesting results were obtained from the observations of those of July 19th, and August 1st. Upon July 19th the plant of the other power company on the American side, the Niagara Falls Hydraulic Power and Manufacturing Company, also was almost completely shut down. The report of the secretary upon these observations is hereto appended and marked "B." The conclusions which he reaches is that the diversion of 8,000 cubic feet per second through these plants lowers the level of Niagara river at Grass Island, near the intake of the Niagara Falls Power Company, about three and one-quarter inches; near the Ontario intake on the Canadian side, about one and one-quarter inches; and at Prospect Point, the crest of the American Fall, about four-tenths of an inch. These results are at first glance somewhat surprising. They show that of the water diverted on the American side a larger portion is drawn from water naturally tributary to the Canadian Fall than has heretofore been estimated. In 1907 the United States Lake Survey determined that the relative amount of water flowing over the American Fall was about 4.85 per cent. of the total discharge of the river, the remainder going over the Horseshoe Fall, which was at variance with preconceived notions. It now appears that these proportions held also at least approximately, for the water drawn through the power intakes as now located on the American side. It is possible that further observations, if they could be made, would increase the amount of change here attributed to the diversion of

8,000 cubic feet per second. The gauge observations were taken from staff gauges, by observers employed for the occasion, and may perhaps not be entirely free from error. But they are close approximations. If the amount of change as here found be doubled it will still remain small, and the conclusion above drawn as to the source of the water will hold good.

INTERNATIONAL BOUNDARY.

4. On the 11th of April, 1908, a treaty between the United States and Great Britain was signed at Washington, providing for the more complete definition and demarcation of the international boundary between the United States and the Dominion of Canada. Ratifications were exchanged at Washington June 4, 1908, and the treaty was proclaimed July 1, 1908. By article IV of this treaty this Commission is authorized to ascertain and re-establish the location of that portion of the boundary line which passes through the Great Lakes system, beginning at its point of intersection with the St. Lawrence river near the forty-fifth parallel of latitude, and extending through the St. Lawrence river and the Great Lakes and communicating waterways to the mouth of Pigeon river, at the western shore of Lake Superior. For this duty the Commission acts under and reports to the Honorable Secretary of State.

* * * * *

REGULATION OF LAKE ERIE.

6. A large amount of labor has been expended during the year upon the solution of this important problem, but it has not been entirely completed. It is hoped that a report upon the subject can be submitted at an early date.

Very respectfully,

O. H. ERNST,
Brigadier-General, U. S. A., Retired,
Chairman of American Section.

GEORGE CLINTON,
Member American Section,
E. E. HASKELL,
Member American Section.

Attest:

W. EDWARD WILSON,
Secretary American Section.

APPENDIX A.

INTERNATIONAL WATERWAYS COMMISSION,
OFFICE OF AMERICAN SECTION,
BUFFALO, N. Y., March 3, 1908.

HON. T. E. BURTON,

Chairman Committee on Rivers and Harbors, House of Representatives, Washington, D. C.:

SIR.—In compliance with the request contained in your letter of the 19th instant the International Waterways Commission have the honor to submit the following remarks upon the bill H. R. 25546, Fifty-ninth Congress, second session, introduced in the House of Representatives February 8, 1907, and referred to the Commission in May last. The bill authorizes the Lower Niagara River Power and Water Supply Company to divert water from the Niagara river below the falls to an amount not exceeding 40,000 cubic feet per second.

In our report to the two governments dated May 3, 1906, we recommended that the total amount of water to be diverted from the Niagara river above the falls should not be allowed to exceed 64,500 cubic feet per second, of which 28,500 cubic feet, including 10,000 cubic feet for the Chicago drainage canal, was to be diverted on the American side and 36,000 cubic feet on the Canadian side. These numbers were fixed by the special conditions of the case, and are not to be taken as a guide in fixing the amount of water which may properly be diverted from the Niagara river elsewhere or in dividing it between the two countries. The preservation of the rapids of Niagara river above and below the whirlpool is in our judgment of nearly as great importance to the æsthetic education of the people as is the preservation of the falls themselves. In both cases their grandeur is dependent upon their volume. In this case it is not necessary and in our judgment it is not expedient, to allow the diversion of an amount which shall in any sense be experimental. It is our opinion that about 40,000 cubic feet per second can be diverted without preceptible injury to the rapids, and that any amount greater than that will approach the danger line more and more nearly according to its volume. We, there-

fore, recommend that no more than 40,000 cubic feet be diverted on both sides of the river taken together.

The general rule which should govern the diversion of the water between the two countries is that each side should be entitled to one-half. In the absence of a treaty between the two governments to regulate the diversion of water from Niagara river, Congress should not, in our judgment, dispose of more than half of the total; that is, in this case, 20,000 cubic feet per second. If no other company is to be provided for, there seems to be no objection to the passage of the bill referred to us, after cutting down the quantity of water to be allowed to 20,000 cubic feet per second.

Very respectfully,

O. H. ERNST,

*Brigadier-General, U. S. Army, Retired,
Chairman American Section,*

GEORGE CLINTON,

Member American Section,

E. E. HASKELL,

Member American Section,

GEO. C. GIBBONS,

Chairman Canadian Section,

WM. J. STEWART,

Member Canadian Section.

Attest:

W. EDWARD WILSON,

Secretary American Section.

APPENDIX B.

BUFFALO, N. Y., September 12, 1908.

To the International Waterways Commission:

SIRS.—In compliance with the instructions given me at the meeting of the Commission held at Buffalo, N. Y., June 2, 1908, to take observations and determine the effect on the river and falls of the diversion of water by the American power plants at Niagara Falls, I have the honor to report:

On the condition of the tunnel of the Niagara Falls Power Company.

II. The quantity of water required to generate one horse-power in power houses 1 and 2 of the Niagara Falls Power Company.

III. The effect on the Niagara river and falls, caused by the shutting off of water from the plants on the American side of the Niagara river.

* * * * *

II. QUANTITY OF WATER REQUIRED TO GENERATE ONE ELECTRICAL HORSE-POWER IN POWER HOUSES 1 AND 2 OF THE NIAGARA FALLS POWER COMPANY.

On page 7 of the report by Capt. Charles W. Kutz, corps of engineers, United States army, dated October 5, 1905 (being a part of the report upon the existing water power situation at Niagara Falls, so far as concerns the diversion of water on the American side), the following extract is quoted from section 9:

"As a result of more or less recent tests made by the engineers of the power company, it was determined that an average in the two power houses of 0.101 cubic feet per second was required to develop one electrical horse-power at the switchboard. If this determination is correct, the development of 100,000 electrical horse-power, the nominal capacity of the plant, would require 10,100 cubic feet of water per second. This amount exceeds by 1,500 cubic feet the amount computed as necessary under the assumed efficiency of the turbines and theoretic effective heads noted above."

The nominal capacity of power plants 1 and 2 has been stated

to be 100,000 horse-power, but up to date the maximum amount of electrical horse-power actually developed, measured at the switchboard, was 82,460, which occurred about 5:30 P. M., October 27, 1905. No current meter measurements of the total flow of water were made in the canal at this time, so that the only method of determining the quantity actually used depends upon the turbine rating curves of one wheel in each power house.

That 100,000 horse-power has never been developed is due to the fact that the tunnel cannot discharge the quantity of water required to generate the power under existing conditions. The tunnel was originally designed to carry the water from the wheels at an average velocity of about twenty-five and one-half feet per second. In order for the water to attain this velocity, head must be created in the wheel pits, which necessarily reduces the effective head under which the turbines operate, thus decreasing the efficiency of the plant.

* * * * *

CONCLUSIONS.

The conclusions reached in the above report may be summarized as follows:

1. The tunnel of the Niagara Falls Power Company showed no apparent erosion from the friction of the water with the lining.

The breaks in the tunnel from wheel pit No. 2 to the intersection of tunnels Nos. 1 and 2 with the main tunnel were probably caused by ice with enthralled air, which was carried into the tunnel during the period of ice sluicing the first winter that power house No. 2 was in operation.

An additional retaining wall, or buffer, was constructed to prevent further erosion of the original retaining wall which had been built for the protection of the American abutment of the steel arch bridge at Niagara Falls.

2. The maximum quantity of water required for a maximum load, in power houses Nos. 1 and 2 of the Niagara Falls Power Company, to generate one electrical horse-power measured at the switchboard, is unknown until a complete investigation of the subject has been made, which is not within the scope of this report.

One hundred and twenty-five thousandths of a cubic foot of water per second per electrical horse-power, measured at the switch-

board, was required on June 13, 1908, to develop an average load of 4,000 electrical horse-power on eight generators in power house No. 1 of the Niagara Falls Power Company.

Ninety-five thousandths of a cubic foot of water per second per electrical horse-power measured at the switchboard, was required on June 13, 1908, to develop an average load of 4,600 electrical horse-power on ten generators in power house No. 2 of the Niagara Falls Power Company.

3. The surface of the Niagara river is lowered by the diversion of 8,000 cubic feet of water per second through the plant of the Niagara Falls Power Company and that of the Niagara Falls Hydraulic Power and Manufacturing Company by the following amounts:

Gauge No. 4, Grass Island, near intake of the Niagara Falls

Power Co.	0.271
Gauge No. 5, near Ontario intake.104
Gauge No. 6, Willow Island.078
Gauge No. 7, <u>Prospect Point, crest of American Falls</u>	<u>.031</u>

4. In 1907 the United States lake survey determined that the relative amount of water flowing over the American Falls was about 4.85 per cent. of the total volume of the discharge of the river, the remainder going over the Horseshoe Falls.

The amount the water is lowered on the crest of the American Falls when 8,000 cubic feet per second is being taken by the American power plants is, therefore, small. When these plants are closed down, only approximately 5 per cent. of this 8,000 passes over the American Falls. This fact is substantiated by the nearly equal rise of 0.10 of a foot in the water surface at gauge No. 5, located near the Ontario intake on the Canadian side of the river, and that of 0.08 of a foot at gauge No. 6, located at Willow Island on the American side. These gauges are situated about equal distances from the crest of the rapids approaching the falls.

Very respectfully,

W. EDWARD WILSON,
Secretary American Section.

NUMBER OF VISITORS.

The Superintendent estimates that one million persons visited the Reservation during the year. This estimate does not include residents of the city of Niagara Falls. Were it possible to make

an intelligent estimate of the actual number of persons who frequent the State lands the number would be much greater.

The Superintendent in his report which is appended hereto makes a plea for a greater allowance for maintenance. This Commission, therefore, asks that the fund be increased to \$37,900. Since the establishment of the Reservation the city of Niagara Falls has grown from a quiet residential village to a prosperous manufacturing city the population of which, owing to the character of certain products manufactured, contains a large percentage of foreigners. These people embrace every opportunity to visit the State lands and, not knowing the difference between liberty and license, commit many depredations and add very materially to the cost of policing and maintaining the Reservation. It is not the desire or intention of the Commissioners to deprive these people of the benefits which they receive through visiting the Reservation but sufficient funds should be provided to employ necessary police to maintain order. In our opinion an increase of patrolmen from four to twelve is necessary in order to enable us to properly protect the property committed to our care and law-abiding visitors to the Reservation against outrage or insult from others. The extent of the Reservation is such that it can, under present conditions, only be made a safe and pleasant place to visit, by the maintenance of a well disciplined police force composed of not less than twelve men.

ROADS.

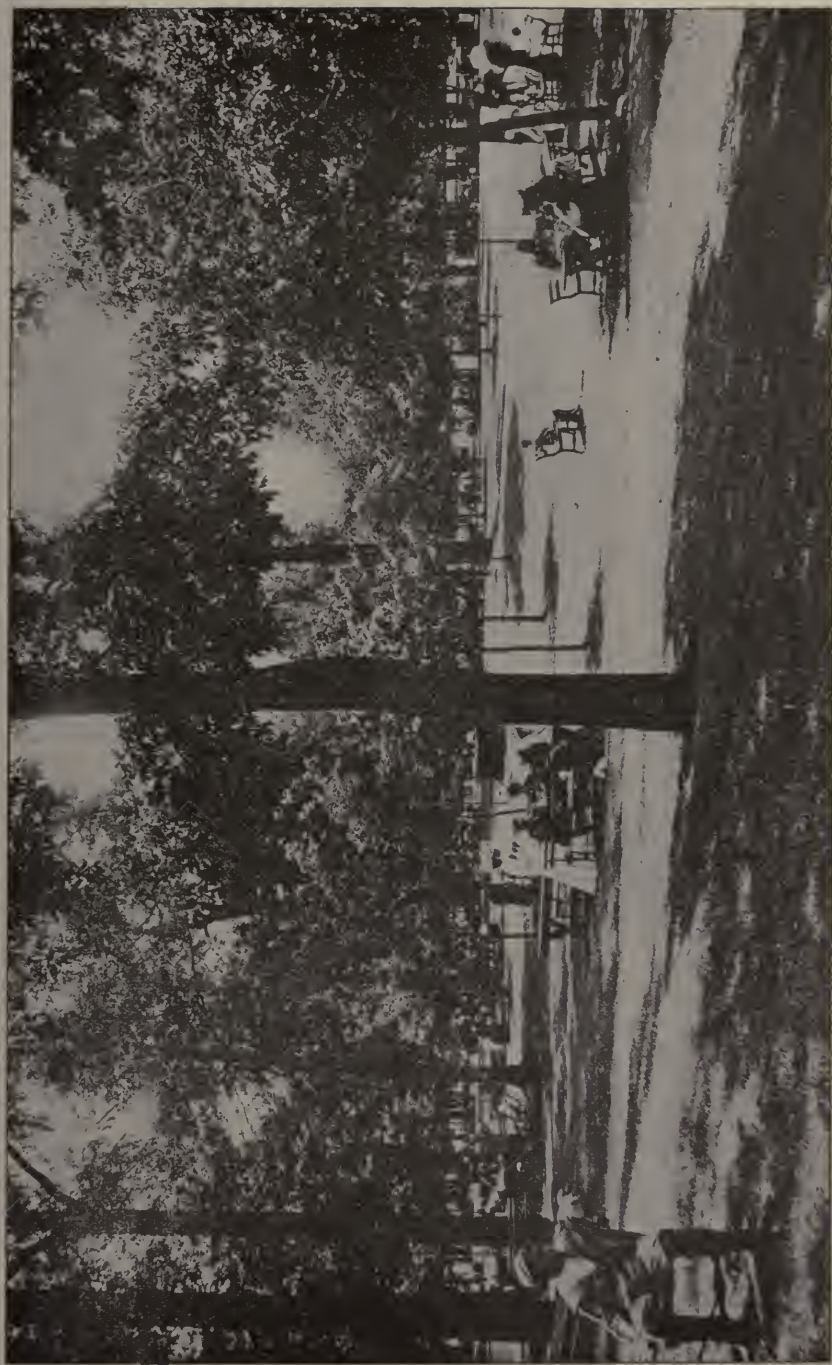
The roads upon the Reservation are, without an exception, intolerably bad and a disgrace to the State of New York. A road that would answer for light coach and carriage traffic such as was in vogue when the Reservation roads were constructed, will not stand the heavy automobile traffic of the present day. The roads on Goat Island are so narrow and tortuous that it has been found necessary to require all vehicles to travel in the same direction to avoid accidents. This naturally concentrates all traffic to one track in the road, which, being constructed principally of gravel, soon becomes cut up and full of ruts. With the State expending so many millions upon good roads and setting such a good example to the world at large, it would seem that the paltry sum required to place the Reservation roads in proper condition should be forthcoming.

We urge that an appropriation of not less than \$15,000 be made

to enable us to construct a macadam or brick roadway around Goat Island. Such a roadway will cost less to maintain than that now in use, will make travel around the island in carriages and automobiles more pleasant to those so traveling and less of an annoyance to foot passengers. At the present time the thick dust covering the road in summer thrown in clouds over all near the roadway by swiftly moving carriages and automobiles, makes traveling on the island most unpleasant. Goat Island, one of the beauty spots of the world, should be made accessible without discomfort to the hundreds of thousands of visitors who come from all parts of the world to see Niagara.

ELEVATOR.

By chapter 212 of the Laws of 1908, \$94,500 was provided for the construction of a vertical elevator with underground stations to take the place of the old inclined railway and \$10,000 for a pathway leading down the talus slope to the steamboat landing. The State Architect provided plans and specifications for the work and proposals were asked for and received December 4, 1908. All proposals being far in excess of the amount available, the plans were returned to the State Architect for revision. Proposals were again called for and received December 23d and the contract awarded to Charles E. Fraser & Co., of New York on their proposal to do the whole work for \$100,000. At the time of the writing of this report the work has been nicely started and it is expected that the elevator will be ready for use by the 1st of July, 1909.



SCENE IN PROSPECT PARK.



SCENE IN PROSPECT PARK.

CONTRACT.

By authority of chapter 212, Laws of 1908—"BB"—\$10,000.00
"CC"— 90,000.00

STATE OF NEW YORK

CONTRACT

Made and entered into this 31st day of December, A. D., 1908, by and between the Commissioners of the State Reservation at Niagara, Niagara Falls, N. Y., acting for and in behalf of the State of New York, as party of the first part and Charles E. Fraser & Co., 315 Fifth avenue, New York city, as party of the second part,

WITNESSETH: That said party of the second part hereby agrees for themselves, their heirs, executors, administrators, successors or assigns, for the consideration hereinafter mentioned, to furnish the material and perform the labor required and necessary for construction, plumbing, electric heating and lighting, and vertical elevators, including machinery; shaft and tunnel and inclined foot path; at the State Reservation at Niagara, Niagara Falls, N. Y., in accordance with specifications No. 1197 and memoranda of changes dated December 15, 1908, per their proposal of December 2, 1908, and supplemental proposition of December 28 and 30, 1908, copies of which are hereto attached.

The work to be commenced promptly, progressed with diligence, in accordance with the drawings and specifications prepared by Franklin B. Ware, State Architect, and in the order which the State Architect may reasonably require, and to be fully completed on or before July 4, 1909, except that the elevators are to be fully completed and in working order and ready for use on June 1, 1909.

The said party of the first part hereby agrees to pay to the said party of the second part, in consideration of the due fulfillment of the conditions of this contract the sum of one hundred thousand dollars (\$100,000.00), as hereinafter specified.

It is understood and agreed that all the conditions and obligations set forth in said specifications, copies of which are hereto annexed, are to have the same force and effect as if set forth specifically and at length herein.

It is understood and agreed that the party of the second part shall pay to the party of the first part, by way of liquidated and ascertained damages and not as a penalty, the sum of ten dollars

for each and every day on which there is delay beyond the above named date for completion to compensate the party of the first part for the loss sustained by reason of inability to enter into possession and on account of failure to complete the contract, and such sum or sums shall be deducted from any moneys which may be due or become due thereon. This provision shall not be taken to affect the rights with regard to this contract as set forth in the clause in the general conditions entitled: "Delay."

It is expressly understood and agreed by and between the several parties hereto that this contract shall be deemed executory only to the extent of the moneys available therefor, and that no liability on account of this said contract shall be incurred by the State beyond the moneys available for the purposes herein.

It is understood that the contractor shall conduct the work provided for herein in compliance with all laws of the State of New York and with the lawful directions of the officers, agents or representatives of the State.

The contractor further stipulates and agrees that no laborer, workman or mechanic in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by this contract shall be permitted or required to work more than eight hours in any one calendar day except in case of extraordinary emergency caused by fire, flood or damage to life or property.

The contractor further stipulates and agrees that the wages to be paid for a legal day's work, as hereinbefore defined, to all classes of such laborers, workmen or mechanics upon said work or upon any material to be used upon or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the locality within the State where such public work on, about or in connection with such labor is performed in its final or completed form, is to be situated, erected or used.

The contractor further agrees that this contract shall, at the option of the State, be void and of no effect, unless said contractor and each and every person who may have any part on the contractor's behalf in performing the same shall comply with the provisions of chapter 506 of the Laws of 1906.

The contractor further agrees that in the construction of said work only citizens of the United States shall be employed, and in all cases where laborers are employed on such public works preference shall be given to citizens of the State of New York.

The contractor further agrees that this contract shall, at the option of the State, be void if the provisions of these sections are not complied with.

The contractor further agrees that he will not assign, transfer, convey, sublet or otherwise dispose of this contract or of his rights, title or interest therein or his power to execute the same without the consent in writing of the State, or any moneys which are to become due or payable to him because thereof to any person, company or corporation without the previous consent in writing of the State and that until such consent in writing shall have been given no claim or demand shall exist in favor of any person, company or corporation to any of the moneys to be paid by the State on account of the provisions of this contract in favor of any person, association or corporation except the said contractor.

The party of the first part hereby agrees to make payments as follows: Eighty per cent. of the value of the material and work incorporated in the building, as certified by the State Architect, monthly, as the work progresses, and the balance upon the satisfactory completion of the contract, when so certified by the State Architect, but the last payment on this contract shall not be made until all charges for extra work and allowances for omissions have been rendered, agreed to and certified by the State Architect, nor until the party of the second part has furnished satisfactory evidence that there are no outstanding liens or claims for materials furnished or labor performed on the said work.

IN WITNESS WHEREOF, The parties have hereunto set their hands and seals the day and year first above written and the said parties have executed this agreement in quintuplicate, one copy of which is to remain with each of the parties hereto, one copy to be filed with the Comptroller of the State, one copy with the State Architect and the other with the Superintendent of the Niagara Reservation.

Witnesses:

COMMISSIONERS OF THE STATE
RESERVATION AT NIAGARA.

By CHARLES M. DOW, *President*. [L. S.]

[SEAL.] CHARLES E. FRASER & COMPANY.

By CHARLES E. FRASER, *President*. [L. S.]

Contractor.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } ss.:

On this 9th day of January, 1909, before me personally came Charles E. Fraser, to me known, who being by me duly sworn did depose and that he resides in New York city, N. Y.; that, he is the president of Charles E. Fraser & Co., the corporation described in and which executed the foregoing instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by the order of the board of directors of said corporation, and that he signed his name thereto by like order.

MARIE J. SAUSE,

Notary Public, New York County.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } ss.:

I, Peter J. Dooling, clerk of the county of New York, and also clerk of the Supreme Court of the said county, the same being a court of record, do hereby certify, that Marie J. Sause, whose name is subscribed to the certificate of the proof or the acknowledgment of the annexed instrument, and thereon written, was at the time of taking such proof or acknowledgment, a notary public in and for the county of New York, dwelling in the said county, commissioned and sworn, and duly authorized to take the same. And further that I am well acquainted with the handwriting of such notary and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of the said court and county the 11th day of January, 1909.

P. J. DOOLING,

[Seal.]

Clerk.

BOND.

KNOW ALL MEN BY THESE PRESENTS, That Charles E. Fraser & Co., of 315 Fifth avenue, New York (hereinafter called the "principal"), and the National Surety Company, a corporation created and existing under the laws of the State of New York having its principal office in the city of New York (hereinafter called the "surety"), are held and firmly bound unto the people

of the State of New York (hereinafter called the "owner"), in the full and just sum of sixty thousand dollars (\$60,000), good and lawful money of the United States of America, to the payment of which said sum of money, well and truly to be made and done, the said principal binds himself, his heirs, executors and administrators and the said surety binds itself, its successors and assigns, jointly and severally, firmly by these presents; signed, sealed and dated this 31st day of December, A. D. 1908.

WHEREAS, Said principal has entered into a certain written contract dated December 31, 1908, with the Commissioners of the State Reservation at Niagara, for construction, plumbing, electric heating and lighting, and vertical elevators, including machinery; shaft and tunnel and inclined footpath; at the State Reservation at Niagara, Niagara Falls, N. Y., in accordance with specification No. 1197 and memoranda of changes dated December 15, 1908.

NOW, THEREFORE, THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, That if the said principal shall well, truly and faithfully comply with and perform all of the terms, covenants and conditions of said contract on his part to be kept and performed, according to the tenor of said contract, and shall protect the said State of New York against, and pay any and all amounts, damages, costs and judgments which may be recovered against said State or its officers or agents or which the said State of New York may be called upon to pay to any person or corporation by reason of any damages arising or growing out of the doing of said work, or the repair or maintenance thereof, or the manner of doing the same, or the neglect of the said principal, or his agents or servants, or the improper performance of the said work by the said principal, or his agents or servants, or the infringement of any patent or patent rights by reason of the use of any material furnished or work done as aforesaid or otherwise, then this obligation shall be null and void, otherwise to remain in full force and virtue.

And the said surety for value received hereby stipulates and agrees that no change, extension, alteration or addition to the terms of this said contract or specifications accompanying the same, shall in any wise affect their obligation on this bond.

IN TESTIMONY WHEREOF, The said principal has hereunto set his hand and seal, and the said surety has caused this instrument

to be signed by its president and its secretary, and its corporate seal to be hereunto affixed, the day and year first above written.

Signed, sealed and delivered in the presence of

CHARLES E. FRASER & CO.,

[SEAL.] By CHARLES E. FRASER, *President*. [L. S.]

NATIONAL SURETY COMPANY,

[SEAL.] By LEONARD DAMMANN, [L. S.]

Resident Vice-President.

Attest: WM. S. KONIG, [L. S.]

Resident Assistant Secretary.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } ss.:

On this 9th day of January, 1909, before me personally came Charles E. Fraser, to me known, who being by me duly sworn, did depose and say that he resides in New York city, New York; that he is the president of Charles E. Fraser & Co., the corporation described in and which executed the foregoing instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

MARIE J. SAUSE,

Notary Public, New York County.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } ss.:

I, Peter J. Dooling, clerk of the county of New York, and also clerk of the Supreme Court for the said county, the same being a court of record, do hereby certify, that Marie J. Sause, whose name is subscribed to the certificate of the proof or the acknowledgment of the annexed instrument, and thereon written, was at the time of taking such proof or acknowledgment a notary public in and for the county of New York, dwelling in the said county, commissioned and sworn and duly authorized to take the same. And further that I am well acquainted with the handwriting of such notary and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the said court and county the 11th day of January, 1909.

J. P. DOOLING,

[SEAL.]

Clerk.



FISHERMAN TRAIL. NEAR ENTRANCE.



FISHERMAN TRAIL. NEAR THE SPRING.

PUBLIC COMFORT STATIONS.

One of the most pressing needs of the Reservation is a number of clean, sanitary and accessible public comfort stations. Toilets for men and women are contained in the Administration building in Prospect Park. The new elevator to take the place of the inclined railway will contain such toilet rooms, but after Prospect Park has been left by the visitor there is no toilet room fit for a decent man or woman to use, with the exception of the ones in the Shelter Building on Goat Island. There is an urgent need for such a station near the Three Sister Islands, and in our opinion the most needed of all special appropriations for the Reservation is an appropriation of at least \$15,000 for the construction of such a station, and for supplying the Shelter Building on Goat Island with water so that the toilet rooms in such building can be used in the winter. A public service corporation serving one-third of the number of people who annually visit Goat Island would be required by the Public Service Commission of either department to remove the unsightly, unsanitary and unfit toilets, or privies, which now exist on Goat Island, to the shame of the State, and replace them by clean, sanitary and properly plumbed structures. Decent men and women will not make use of the conveniences we now have, and yet we invite such to visit the island in constantly increasing numbers. The State should relieve itself of the disgrace, and we speak thus plainly because until we have done all we can toward bettering the conditions the disgrace is also ours. The hundreds of thousands of visitors should be furnished the conveniences that people find in every well-kept place of amusement and which decent people everywhere try to provide for themselves.

ELEVATOR AT CAVE OF THE WINDS.

We renew our request for an appropriation for a permanent structure to take the place of the Biddle Stairway. The increased rental to be obtained from the lessee of the Cave of the Winds would more than pay the interest on the cost of such structure. One of the finest views of the falls is to be obtained from this point. One who has not seen the falls from below at the Cave of the Winds has failed to see them in their greatest sublimity. Many are deterred from obtaining this view by the physical hardship of going down the stairs and climbing them again.

We believe that such a structure containing adequate toilet-room provisions can be built for \$30,000 and that it would at once provide a largely increased revenue.

RECAPITULATION OF FUNDS NEEDED.

For maintenance.....	\$37,900 00
For public comfort stations.....	15,000 00
For roads.....	15,000 00
For scientific treatment of trees.....	2,500 00
For tree planting.....	1,000 00
For permanent elevator and structure in place of the Biddle Stairs at the Cave of the Winds.....	30,000 00
	<hr/>
	\$101,400 00
	<hr/>

ESTIMATED RECEIPTS FOR NEXT YEAR.

Prospect Park elevator*.....	\$10,000 00
Cave of the Winds.....	2,500 00
International railway rental.....	1,000 00
Maid of the Mist rental.....	600 00
Reservation carriages.....	100 00
	<hr/>
	\$14,200 00
	<hr/>

Respectfully submitted.

CHARLES M. DOW,
THOMAS P. KINGSFORD,
ALEXANDER J. PORTER,
EUGENE CARY,

Commissioners.

* Provided the elevator is completed on or before the 1st day of July, 1909, as expected.

REPORT OF THE TREASURER
OF THE
STATE RESERVATION AT NIAGARA
FOR THE

Fiscal Year Ending September 30, 1908.



VIEW FROM NEW TALUS TRAIL. ROCK OF AGES AT THE RIGHT.

TREASURER'S REPORT.

The Commissioners of the State Reservation at Niagara, in account with EDWARD H. PERRY, Treasurer, for the fiscal year begun October 1, 1907, and ended September 1, 1908.

MAINTENANCE RECEIPTS.

1907.		<i>Chapter 577, Laws of 1907.</i>	
Nov. 7.	Payment by State Comptroller on account.....	\$2,447	86
Nov. 29.	Payment by State Comptroller on account.....	2,558	90
Dec. 31.	Payment by State Comptroller on account.....	2,304	24
1908.			
Jan. 31.	Payment by State Comptroller on account.....	1,918	50
March 6.	Payment by State Comptroller on account.....	2,192	73
April 3.	Payment by State Comptroller on account.....	1,915	48
April 30.	Payment by State Comptroller on account.....	2,032	92
June 4.	Payment by State Comptroller on account.....	2,354	07
June 27.	Payment by State Comptroller on account.....	2,039	10
Aug. 4.	Payment by State Comptroller on account.....	1,872	14
Aug. 5.	Payment by State Comptroller on account.....	1,019	03
Sept. 5.	Payment by State Comptroller on account.....	2,430	97
Sept. 30.	Payment by State Comptroller on account.....	2,295	00
			<hr/>
			\$27,380 94

IMPROVEMENT ACCOUNT.

ELECTRIC INSTALLATION.

1907.		<i>Chapter 316, Laws of 1907.</i>	
Dec. 10.	Payment by State Comptroller on account.....	\$5,310	75
1908.			
Jan. 9.	Payment by State Comptroller on account.....	4,389	15
Feb. 13.	Payment by State Comptroller on account.....	1,965	00
April 30.	Payment by State Comptroller on account.....	197	33
June 4.	Payment by State Comptroller on account.....	17	90
June 10.	Payment by State Comptroller on account.....	2,066	10
			<hr/>
			13,946 23

SHAFT AND TUNNEL.

1908.		<i>Chapter 212, Laws of 1908.</i>	
July 8.	Payment by State Comptroller on account.....	\$309	40
Sept. 12.	Payment by State Comptroller on account.....	273	94
			<hr/>
			583 34

REPAIRS TO BRIDGES.

1907.		<i>Chapter 686, Laws of 1906.</i>	
Nov.	29.	Payment by State Comptroller on account.....	\$130 00
1908.			
April	30.	Payment by State Comptroller on account.....	105 00
			<hr/>
			\$235 00

RESERVATION RECEIPTS.

RENTALS.

Reservation carriage service.....	\$100 00	
Cave of the Winds.....	1,500 00	
Maid of the Mist.....	600 00	
	<hr/>	2,200 00
Total.....	\$44,345 51	

EXPENDITURES.

MAINTENANCE.

Abstract No. 159.

Date.	Voucher.	Name.	Amount.
1907.			
Nov.	7.	3860..The B. F. Goodrich Co., wages of employees, supplies, etc.....	\$110 00
		3861..Niagara Falls Hyd. Power & Mfg. Co., wages of employees, supplies, etc....	50 00
		3862..F. E. Dean Co., wages of employees, supplies, etc.....	16 00
		3863..W. S. Humbert, Inc., wages of employees, supplies, etc.....	15 56
		3864..O. W. Clark & Son, wages of employees, supplies, etc.....	15 00
		3865..F. S. Phillips, wages of employees, supplies, etc.....	6 80
		3866..Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.....	26 83
		3867..C. E. Allen, wages of employees, supplies, etc.....	48 00
		3868..Willard Bobst, wages of employees, supplies, etc.....	50 00
		3869..Wicker Lumber Co., wages of employees, supplies, etc.....	41 35
		3870..J. B. Lyon Co., expenses.....	10 94
		3871..Cataract Journal Co., expenses.....	4 50
		3872..Power City Publishing Co., expenses...	4 50
		3873..Bell Telephone Co., expenses.....	20 95
		3874..Bell Telephone Co., expenses.....	31 40
		3875..Pay-roll, October.....	1,884 43
		3876..Edward H. Perry, expenses.....	111 57

Date.	Voucher.	Name.	Amount.
1907.			
Nov.	29.	3877..William Young, wages of employees, supplies, etc.....	\$8 99
		3878..C. E. Allen, wages of employees, supplies, etc.....	44 34
		3879..R. R. Coddington, wages of employees, supplies, etc.....	171 60
		3880..The Patterson Thompson Co., wages of employees, supplies, etc.....	27 16
		3881..The Patterson Thompson Co., wages of employees, supplies, etc.....	25 18
		3882..Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.....	58 57
		3883..Jesse D. Frost, wages of employees, supplies, etc.....	57 00
		3884..Henry Chormann, wages of employees, supplies, etc.....	7 70
		3885..F. E. Dean Co., wages of employees, supplies, etc.....	158 14
		3886..Niagara Falls Hyd. Power & Mfg. Co., wages of employees, supplies, etc....	50 00
		3887..W. S. Humbert, Inc., wages of employees, supplies, etc.....	25 45
		3888..D. Lynch & Sons, wages of employees, supplies, etc.....	15 00
		3889..McGarigle Machine Co., wages of employees, supplies, etc.....	18 83
		3890..Wicker Lumber Co., wages of employees, supplies, etc.....	3 92
		3891..Pay-roll, November.....	1,811 27
		3892..Bell Telephone Co., expenses.....	19 25
		3893.."Klips," expenses.....	4 75
		3894..Niagara Falls Auto Transfer Co., expenses.....	10 00
		3895..Power City Publishing Co., expenses...	12 50
		3896..Edward H. Perry, expenses.....	29 25
Dec	31.	3897..Cancelled.	
		3898..J. B. Lyon Co., expenses.....	6 33
		3899..Edward H. Perry, expenses.....	24 05
		3900..Dobbie Foundry & Machine Co., wages of employees, supplies, etc.....	15 12
		3901..Bell Telephone Co., expenses.....	20 85
		3902..F. S. Phillips, wages of employees, supplies, etc.....	11 15
		3903..Benjamin F. Lee, wages of employees, supplies, etc.....	13 00
		3904..C. E. Allen, wages of employees, supplies, etc.....	9 96

Date. 1907.	Voucher.	Name.	Amount.
Dec.	31.	3905.. Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.	\$50 16
		3906.. Cataract Ice Co., expenses.	4 70
		3907.. Wicker Lumber Co., wages of em- ployees, supplies, etc.	206 51
		3908.. C. C. Butler, wages of employees, sup- plies, etc.	130 05
		3909.. "Klips," expenses.	6 95
		3910.. Niagara Falls Hyd. Power & Mfg. Co., wages of employees, supplies, etc. . .	50 00
		3911.. The Buffalo Enquirer, expenses.	12 50
		3912.. W. S. Humbert, Inc., wages of em- ployees, supplies, etc.	17 67
		3913.. James E. Brown, wages of employees, supplies, etc.	101 50
		3914.. O. W. Clark & Son, wages of em- ployees, supplies, etc.	10 00
		3915.. Welch Bros., expenses, wages of em- ployees, supplies, etc.	42 40
		3916.. Pay-roll, December.	1,571 34
			<hr/> \$7,311 00

Abstract No. 160.

Date. 1908.	Voucher.	Name.	Amount.
Jan.	31.	3917.. Alvah K. Potter, expenses.	\$35 20
		3918.. "Klips," expenses.	3 50
		3919.. A. J. Porter, expenses.	5 10
		3920.. Wicker Lumber Co., wages of em- ployees, supplies, etc.	6 14
		3921.. Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.	33 96
		3922.. Niagara Falls Hyd. Power & Mfg. Co., wages of employees, supplies, etc. . .	50 00
		3923.. Niagara Falls Hyd. Power & Mfg. Co., wages of employees, supplies, etc. .	5 00
		3924.. C. E. Allen, wages of employees, sup- plies, etc.	30 35
		3925.. Dobbie Foundry & Machine Co., wages of employees, supplies, etc.	9 55
		3926.. Bell Telephone Co., expenses.	20 35
		3927.. W. S. Humbert, Inc., wages of em- ployees, supplies, etc.	13 45
		3928.. E. O. Haynes, wages of employees, supplies, etc.	91 25
		3929.. Henry Chormann, wages of employees, supplies, etc.	2 20
		3930.. Crick Bros., expenses.	4 60

Date.	Voucher.	Name.	Amount.
1908.			
Jan.	31.	3931..G. Beaton, wages of employees, supplies, etc.....	\$9 20
		3932..Gazette Publishing Co., expenses.....	12 25
		3933..Robertson Electrical Co., wages of employees, supplies, etc.....	38 70
		3934..Edward H. Perry, expenses.....	22 00
		3935..Pay-roll, January.....	1,525 70
March	6.	3936..W. S. Humbert Inc., wages of employees, supplies, etc.....	13 55
		3937..C. E. Allen, wages of employees, supplies, etc.....	33 65
		3938..Peter Lammerts, wages of employees, supplies, etc.....	25 00
		3939..Buffalo Electrical Construction Co., wages of employees, supplies, etc....	52 60
		3940..Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.....	29 63
		3941..Niagara Falls Hyd. Power & Mfg. Co., wages of employees, supplies, etc....	50 00
		3942..Buffalo Electrical Construction Co., wages of employees, supplies, etc....	240 00
		3943..Pay-roll, February.....	1,532 96
		3944..Edward H. Perry, expenses, wages of employees, supplies, etc.....	133 68
		3945..A. J. Porter, expenses.....	18 75
		3946..Bell Telephone Co., expenses.....	35 00
		3947..Wicker Lumber Co., wages of employees, supplies, etc.....	10 66
		3948..“Klips,” expenses.....	1 50
		3949..Niagara Falls Transfer Co., expenses...	15 75

 \$4,111 23
Abstract No. 161.

Date.	Voucher.	Name.	Amount.
1908.			
April	6.	3950..Pay-roll, March.....	1,491 75
		3951..Bell Telephone Co., expenses.....	19 20
		3952..Edward H. Hall, expenses.....	188 64
		3953..“Klips”.....	4 55
		3954..Edward H. Perry, expenses, wages of employees, supplies, etc.....	36 01
		3955..Niagara Falls Transfer Co., wages of employees, supplies, etc.....	20 00
		3956..Elderfield-Hartshorn Hardware Co., wages of employees, supplies, etc....	38 07
		3957..Elderfield-Hartshorn Hardware Co., wages of employees, supplies, etc....	15 09
		3958..H. P. Barrington, wages of employees, supplies, etc.....	15 00

Date.	Voucher.	Name.	Amount.
1908.			
April	6.	3959..Schumacher & Moyer, wages of employees, supplies, etc.....	\$4 00
		3960..P. J. Callahan Ice Co., wages of employees, supplies, etc.....	68 42
		3961..C. E. Allen, wages of employees, supplies, etc.....	14 75
	30.	3962..Pay-roll, April.....	1,496 97
		3963..Elderfield-Hartshorn Hardware Co., wages of employees, supplies, etc.....	40 04
		3964..James E. Brown, wages of employees, supplies, etc.....	146 74
		3965..Wicker Lumber Co., wages of employees, supplies, etc.....	42 45.
		3966..Detroit Graphite Co., wages of employees, supplies, etc.....	64 90
		3967..Niagara Falls Transfer Co., wages of employees, supplies, etc.....	21 00
		3968..National Tripoli Co., wages of employees, supplies, etc.....	12 00
		3969..C. E. Allen, wages of employees, supplies, etc.....	20 63
		3970..F. S. Phillips, wages of employees, supplies, etc.....	14 45
		3971.. "Klips," expense.....	1 70
		3972..Edward H. Perry, expense.....	94 04
		3973..J. B. Lyon Co., expense.....	3 50
		3974..Bell Telephone Co., expense.....	24 15
		3975..A. J. Porter, expense.....	50 35
June	4.	3976..Pay-roll, May.....	1,741 70
		3977..O. W. Clark & Son, wages of employees, supplies, etc.....	10 00
		3978..Wicker Lumber Co., wages of employees, supplies, etc.....	99 85
		3979..C. A. Allen, wages of employees and supplies.....	4 13
		3980..Frank D. Cole, wages of employees, supplies, etc.....	6 30
		3981..E. O. Haynes, wages of employees, supplies, etc.....	119 81
		3982..Elderfield-Hartshorn Hardware Co., wages of employees, supplies, etc....	20 49
		3983..Niagara Falls Transfer Co., wages of employees, supplies, etc.....	29 00
		3984..P. C. Flynn & Son, wages of employees, supplies, etc.....	153 67
		3985..William Young, wages of employees, supplies, etc.....	4 23

Date. 1908.	Voucher.	Name.	Amount.
Jan	4.	3986..Howard H. Baker & Co., wages of employees, supplies, etc.....	\$22 00
		3987..American Nursery Co., wages of employees, supplies, etc.....	43 50
		3988..Tower & Lyon Co., wages of employees, supplies, etc.....	28 13
		3989..F. E. Dean Co., wages of employees, supplies, etc.....	11 40
		3990..J. W. Vickers, wages of employees, supplies, etc.....	16 50
		3991..Bell Telephone Co., expenses.....	20 20
		3992..Edward H. Perry, expenses.....	23 16
	27.	3993..Caldwell Lawn Mower Co., wages of employees, supplies, etc.....	21 09
		3994..Elderfield-Hartshorn Hardware Co., wages of employees, supplies, etc...	37 33
		3995..C. E. Allen, wages of employees, supplies, etc.....	6 15
		3996..Niagara Falls Metal Stamping Works, wages of employees, supplies, etc...	6 32
		3997..The Cataract Machine and Automobile Co., wages of employees, supplies, etc.	9 70
		3998..Wm. S. Humbert, Inc., wages of employees, supplies, etc.....	6 75
		3999..Standard Oil Co. of New York, wages of employees, supplies, etc.....	29 57
		4000..Peter Lammerts, wages of employees, supplies, etc.....	3 75
		4001..Niagara Falls Transfer Co., wages of employees, supplies, etc.....	38 50
		4002..Jesse D. Frost, wages of employees, supplies, etc.....	3 50
		4003..Edward H. Perry, expenses, wages of employees, supplies, etc.....	67 48
		4004..Bell Telephone Co., expenses.....	23 10
		4005..Niagara Falls Auto Transit Co.....	5 25
		4006..Pay-roll, June.....	1,780 61
			<hr/>
			\$8,341 57

Abstract No. 162.

Date. 1908.	Voucher.	Name.	Amount.
Aug.	4.	4007..Pay-roll, July.....	\$1,872 14
	5.	4008..Bell Telephone Co., expense.....	28 35
		4009..George Raines, expense.....	50 55
		4010.. " Klips," expense.....	2 70
		4011..Bell Telephone Co., expense.....	72 00
		4013..The Prospect House, expense.....	19 70
		4014..Edward H. Perry, expense.....	52 49

Date.	Voucher.	Name.	Amount.
1908.			
Aug.	5.	4015. J. W. Vickers, wages of employees, supplies, etc.	\$5 50
		4016. Elderfield-Hartshorn Hardware Co., wages of employees, supplies, etc. .	109 67
		4017. Frederick Skene, wages of employees, supplies, etc.	6 00
		4018. Joseph Dower, wages of employees, supplies, etc.	95 00
		4019. W. S. Edgerton, wages of employees, supplies, etc.	54 50
		4020. Dan H. Clark, wages of employees, supplies, etc.	16 50
		4021. Niagara Falls Transfer Co., wages of employees, supplies, etc.	31 50
		4022. Henry Chormann, wages of employees, supplies, etc.	5 10
		4023. C. E. Allen, wages of employees, supplies, etc.	4 53
		4024. Wicker Lumber Co., wages of employees, supplies, etc.	33 20
		4025. Schutte Koerting Co., wages of employees, supplies, etc.	17 50
		4026. F. W. Oliver, wages of employees, supplies, etc.	4 45
		4027. George H. Wynes, wages of employees, supplies, etc.	4 15
		4028. American Horticultural Distributing Co., wages of employees, supplies, etc.	400 00
		4029. William Young, wages of employees, supplies, etc.	5 64
Sept.	5.	4030. Bell Telephone Co., wages of employees, supplies, etc.	15 10
		4031. B. F. Goodrich Co., wages of employees, supplies, etc.	105 00
		4032. G. E. Yerger, general manager, wages of employees, supplies, etc.	8 00
		4033. J. F. Miller, wages of employees, supplies, etc.	75 00
		4034. E. A. Werner, wages of employees, supplies, etc.	4 00
		4035. George W. Benham, wages of employees, supplies, etc.	6 83
		4036. Niagara Falls Transfer Co., wages of employees, supplies, etc.	20 00
		4037. Burleson Hardware Co., wages of employees, supplies, etc.	3 95
		4038. C. E. Allen, wages of employees, supplies, etc.	4 50

Date.	Voucher.	Name.	Amount.
1908.			
Sept.	5.	4039..Crick Bros., wages of employees, supplies, etc.....	\$3 30
		4040..Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.....	13 85
		4041..R. R. Coddington, wages of employees, supplies, etc.....	163 80
		4042..Welch Bros., expenses, wages of employees, supplies, etc.....	63 55
		4043..Edward H. Perry, expenses.....	31 38
		4044..J. B. Lyon Co., expenses.....	6 30
		4045..Pay-roll, August.....	1,906 41
30.		4046..Pay-roll, September.....	1,887 64
		4047..Niagara Falls Transfer Co., wages of employees, supplies, etc.....	20 00
		4048..F. S. Phillips, wages of employees, supplies, etc.....	18 00
		4049..James E. Brown, wages of employees, supplies, etc.....	25 71
		4050..George S. Campbell Co., wages of employees, supplies, etc.....	7 50
		4051..Jesse D. Frost, wages of employees, supplies, etc.....	1 75
		4052..Wicker Lumber Co., wages of employees, supplies, etc.....	14 70
		4053..Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.....	226 00
		4054..Elderfield-Hartshorn Hdw. Co., wages of employees, supplies, etc.....	13 62
		4055..Dobbie Foundry & Machine Co., wages of employees, supplies, etc.....	3 15
		4056..Edward H. Perry, expenses.....	29 68
		4057..National Press Intelligence Co., expenses.....	2 70
		4058..Bell Telephone Co., expenses.....	19 55
		4059..G. E. Yerger, gen. man., expenses.....	25 00
			<hr/> \$7,617 14

PAYMENTS FROM SPECIAL APPROPRIATIONS.

ELECTRIC INSTALLATION.

CHAPTER 316, LAWS OF 1907.

Abstract No. 1.

Date.	Voucher.	Name.	Amount.
1907.			
Dec.	10.	1..Buffalo Electrical Contracting Co., electric installation.....	\$5,310 75
			<hr/> \$5,310 75

Abstract No. 2.

Date.	Voucher.	Name.	Amount.
1908.			
Jan.	9.	2..Buffalo Electrical Contracting Co., electric installation.....	\$4,389 15
Feb.	13.	3..Buffalo Electrical Contracting Co., electric installation.....	\$1,965 00
			<hr/> \$6,354 15

Abstract No. 3.

April	30.	4..Buffalo Electrical Contracting Co., electric installation for lighting grounds....	\$160 88
		5..Westinghouse Electric & Mfg. Co., electric installation for lighting grounds....	36 45
June	4.	6..Westinghouse Electric & Mfg. Co., electric installation for lighting grounds....	2 60
		7..W. A. Eckert, electric installation for lighting grounds.....	15 30
	10.	8..Buffalo Electrical Contracting Co., electric installation.....	2,066 10
			<hr/> \$2,281 33

SHAFT AND TUNNEL.

CHAPTER 212, LAWS OF 1908.

Abstract No. 1.

July	8.	1..Thomas E. Brown, shaft and tunnel....	\$309 40
Sept.	12.	2..Read-Coddington Engineering Co., shaft and tunnel.....	177 94
		3..Read-Coddington Engineering Co., shaft and tunnel.....	96 00
			<hr/> \$583 34

REPAIRS TO BRIDGES:

CHAPTER 686, LAWS OF 1906.

Abstract No. 5.

Nov.	9.	19..Pay-roll, November.....	\$130 00
			<hr/> \$130 00

Abstract No. 6.

April	30.	20..Pay-roll, April.....	\$105 00
			<hr/> \$105 00

REMITTANCE TO STATE TREASURER.

1908.			
Aug.	4.	Draft for July receipts.....	\$600 00
Sept.	5.	Draft for August receipts.....	600 00
Sept.	30.	Draft for September receipts.....	1,000 00
			<hr/>
			\$2,200 00
			<hr/>
Total.....			\$44,345 51
			<hr/>

CLASSIFICATION OF ACCOUNTS.

	Appropriations.	Expended.	Balances.
Salary of superintendent.....	\$2,400 00	\$2,400 00
Salary of two operators.....	1,800 00	1,800 00
Salaries of watchmen, janitor and scrubwoman.	2,500 00	2,500 00
Salaries of policemen, ticketmen and caretakers.	5,200 00	5,199 44	\$0 56
Expenses.....	1,600 00	1,481 80	118 20
Wages of employees, supplies, etc.....	14,000 00	13,999 70	30
		<hr/>	<hr/>
		\$27,500 00	\$27,380 94
		<hr/>	<hr/>
			\$119 06
			<hr/>

EDWARD H. PERRY,
Treasurer.

We, the undersigned, hereby certify that we have examined the foregoing report of the Treasurer for the fiscal year ended September 30, 1908, the vouchers and other papers, and we find the report and accompanying documents correct, and that the Treasurer has properly accounted for all moneys received and disbursed by him during the fiscal year ended September 30, 1908.

CHAS. M. DOW,
T. P. KINGSFORD,
Auditing Committee.

Commissioners of the State Reservation at Niagara.

REPORT OF THE SUPERINTENDENT

OF THE

STATE RESERVATION AT NIAGARA

FOR THE

Fiscal Year Ending September 30, 1908.



PORTION OF NEW TRAIL TO LUNA ISLAND.



ANOTHER PORTION OF NEW TRAIL TO LUNA ISLAND.

REPORT OF THE SUPERINTENDENT.

To the Commissioners of the State Reservation at Niagara:

GENTLEMEN.—I have the honor to submit the following report of work accomplished during the fiscal year ended September 30, 1908, in accordance to orders received from your honorable body.

A pathway has been constructed along the western end of Goat Island on the talus slope, leading from the foot of the stairway at the bottom of the Biddle Stairs to about twenty feet above the water level, thence to the Horseshoe and the American Falls, at the latter point connecting with the system of bridges leading through the Cave of the Winds.

The Biddle Stairway, which provides the only means of reaching the lower river from Goat Island, was generally overhauled by the lessee of the Cave of the Winds. The lower end of the central support or mast had become somewhat decayed. Heavy anchorage bolts and plates were made fast to the sound portion and the whole lower end embedded in concrete.

The outside lighting system, the contract for which was awarded prior to the writing of the last report, was completed December 24, 1907, and has been in continuous operation since that date. The expense for repairs, lamp renewals and general maintenance has been exceedingly small.

The contract for repairing the two stone arched bridges connecting the mainland and Goat Island, provided, in addition to the actual repairs and paving, that there should be installed a system of underground conduits and a four-inch water main connecting the mainland and Goat Island systems. During the progress of the work all vehicular travel was suspended, which gave an opportunity to construct new catch basins on Green Island, lay water pipes to each side of the road for sprinkling purposes, and construct new curbs along either side of the road between the bridges. We were also enabled to gravel and roll the roads on Goat Island while traffic was suspended. Work on the bridges was completed well within the specified time, they being thrown open to the public November 9, 1908.

During the fiscal year several fine elms and maples have been planted in Prospect Park and at Port Day.

Fifty small elms and ash have been planted on the eastern end of Goat Island. The soil is so shallow where these trees were planted that it was necessary to blast holes in the solid rock in which to plant them.

A large amount of work has been done toward cleaning the forest on Goat Island of fallen trees, rotted stumps and the tangle of underbrush, vines, etc. This work can only be done when the force is not occupied with ordinary maintenance, consequently progress is very slow.

The city of Niagara Falls has completed to the water's edge the overflow sewer which is intended to relieve the congested condition of the sewers on Buffalo avenue during seasons of heavy rain. The work was done in a very satisfactory manner and in accordance with the terms of the agreement between the city and your honorable body.

All overhead wires save those of the Goat Island telephone system have been laid in underground conduits.

During the fiscal year ended September 30th there were seven cases of suicide upon the Reservation. Three by shooting and four by drowning. The bodies of the three who had suicided by shooting and one by drowning were recovered. In addition to the above, the body of an unknown man was found in the river on the Canadian side.

There were twenty-two arrests during the year, as follows: Public intoxication, fourteen; disorderly conduct, five; reckless driving, one; and wilful destruction of property, two.

Notwithstanding the financial stringency of the past year, fully one million people visited the Reservation during that time. The season was noteworthy, however, for the fact that the great majority of visitors remained a very short time.

The constantly increasing number of visitors to Niagara, the added cost of maintaining the roads owing to the increase in vehicular travel, especially heavy automobiles, the care of walks, lawns and the banks of the river, which are constantly being eroded by the madly rushing water, besides the necessity for a larger and better police department lead me to plead for a larger maintenance fund.

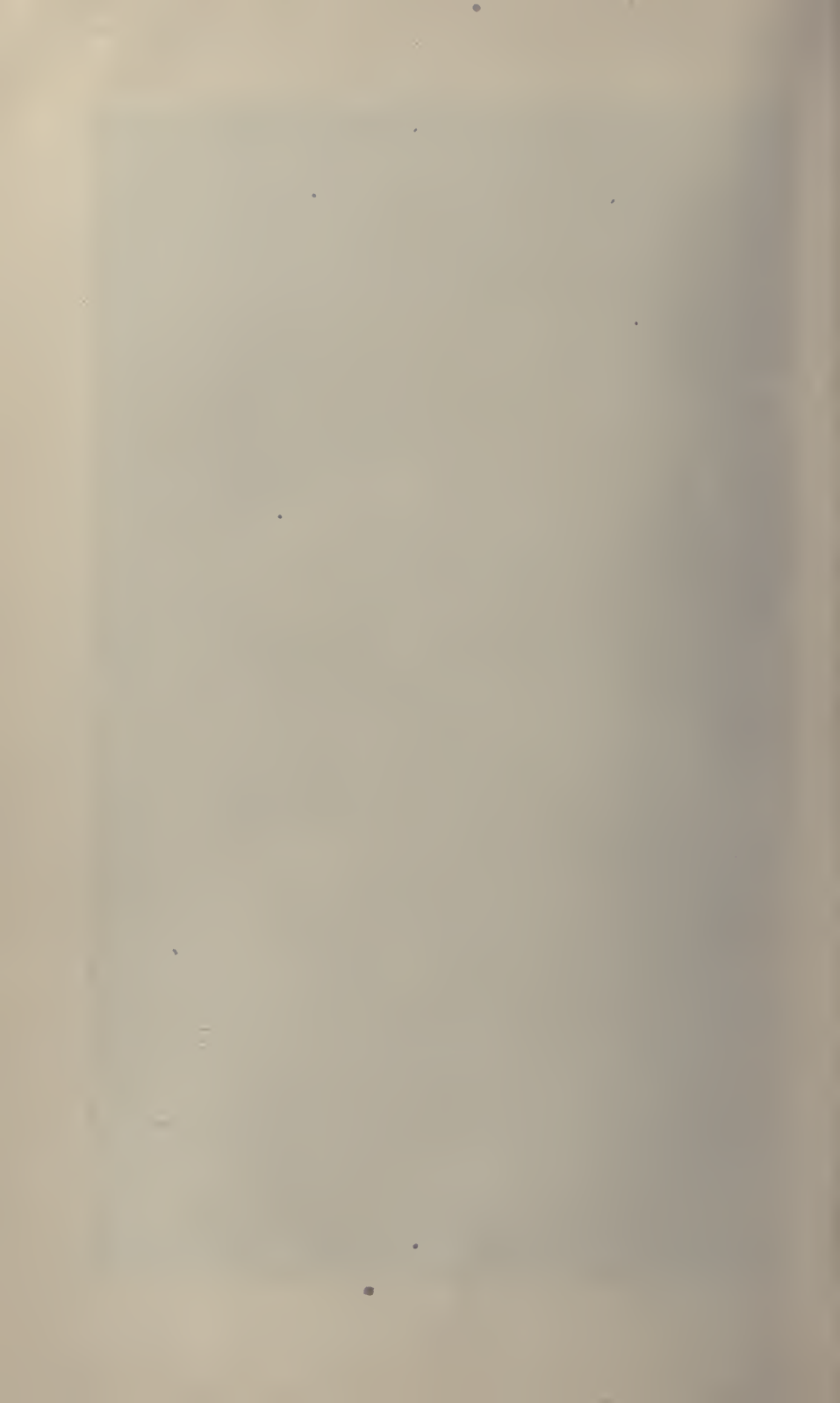
Only by the most rigid economy are we able to get through the year with the funds provided. Even then, much that would add to the attractiveness of the Reservation and the enjoyment of visitors, must be left undone. Our police force is so small that it is a physical impossibility to properly protect the visitors to Niagara.

Respectfully submitted.

EDWARD H. PERRY,
Superintendent.



TRANSFORMER HOUSE.



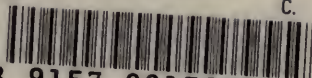


TERMINAL BUILDING.

SPCL
v. 25

F 127 N8 N5

C. 1



3 9157 00178472 0

SPCL

F

127

N8 N5

V. 25

BROCK UNIVERSITY

ST. CATHARINES, ONTARIO



LIBRARY

FOR USE IN SPECIAL COLLECTIONS ONLY

